Subject index

Acadian, 625
accretionary prism, 319
Adirondack Lowlands, 513
AEM analysis, 393
Alice Springs Orogeny, 737
amphibole, 513
amphibolite, 241
amphibolites, 513
amphibolite facies shear zone, 737
amphibolite facies, 497
andalusite, 59
Arunta Block, 737

Barro Alto complex, Brazil 345
Beni Bousera, 335
brittle faults, 319

Calabria, 409
Caledonides, 241, 719
carbonates, 259
carbon isotopes, 607
chlorite, 393
chlorite crystallinity, 531
chlorite zone, 393
clinopyroxene, 211
closure temperature, 335
collisional orogens, 123
compositional dependence, 211
contact metamorphism, 103
continental collision, 193, 375
cooling path, 409
core complex, 59
Corsica, 467
counter-clockwise *P–T–t* paths, 483
craton–mobile belt assembly, 683
Cretaceous, 359
crustal cross-section, 409
crustal thickening, 719
crystallite size, 531
Cyclades, 699

Dabie-Sulu terrane, 149
deformation mechanisms, 271
discordant monazite, 271
disequilibrium, 167
dual origin, 149
ductile extension, 719

East Antarctica, 441
Eastern Ghats, 223
Eastern Ghats granulites, 683
eclogite, 79, 241
eclogite facies, 123, 653
exhumation, 135, 241, 441
exhumation rates, 293

Fiordland, 359
fluid flow, 467
fluid inclusions, 259
fluids, 607
foliated eclogite, 653

garnet, 211, 551
garnet growth hiatus, 591
garnet peridotite, 123, 149, 193
garnet peridotites, 167
garnet pseudomorph, 181
geochronology, 441
geothermobarometry, 193, 665
geothermometer, 211
geothermometry, 513
glaucophanite, 79
granulite, 41
granulites, 259
greenschist facies, 497

heating–cooling trajectory, 223
high pressure overprint, 483
high-*P* granulite facies, 359
high-pressure fluid–rock interaction, 1
high-pressure metamorphism, 607
high-pressure/ultra-high-pressure (HP/UHP) terranes, 123
high-pressure-temperature granulites, 551
Himalayan tectonics, 571
Himalayas, 665
hornblende chemistry, 513
HP/LT metamorphism, 699

inverted metamorphism, 571, 665
inverted thermal gradient, 683
isothermal decompression, 441
İzmir-Ankara-Erzincan ocean, 483

KFMASHTO, 497

Langtang, 665
leptinites, 293
lithostatic pressure gradient, 67
lower crust, 41
low-*P–T* mineral inclusions, 167
low-temperature metamorphism, 531
Lützow-Holm Complex, 441

mafic granulites, 375
Main Central Thrust, 571
mélange, 699
metabasite, 531
metamorphic segregation, 41
metamorphic sole, 639
metamorphism, 375, 625
metapelite, 497, 531
metaperidotite, 181
metasomatism, 103
meteoric fluid, 307
microstructures, 457
Moldanubian Zone, 551
monazite, 335

nappe tectonics, 653
Nd and Sr isotopes, 167
NE Greenland, 719

© Blackwell Science Inc., 0263-4929/00/$15.00

Neo-Tethys, 483
New Caledonia, 79
New Mexico, 457
North China craton, 375
North Dabie, 181
NW Indian Himalaya, 571

opaque inclusions, 591
ophiolite, 639, 699
orogenesis, 307
orogenic garnet peridotite, 135
orthopyroxene + sillimanite, 345
oxygen isotopes, 467, 607

paleo-thermobarometry, 319
Pan-African orogen, 639
peridotites, 293
petrogenetic grid, 23, 497
petrology, 193
phengite, 393
pillow lavas, 467
pressure gradients two times lithostatic, 67
pressure–depth relationship, 67
prograde path, 223
Proterozoic, 457
ΔPT, 91
P–T path, 359, 653
P–T pseudosections, 23

quartz mylonites, 457

Rb–Sr whole-rock dating, 271
REE mobility, 1
retrogression, 307
rutile, 181

Sanbagawa belt, 653
Scandinavian Caledonides, 135
segregation, 1
self organization, 103
Shimanto belt, 319
sillimanite, 59
Sm–Nd age, 737
solid-state recrystallization, 423
spinel + quartz, 345
Sri Lanka, 259
stilpnomelane, 393
Strangways Range, 737
subduction, 167, 467, 639
sub-ophiolite metamorphism, 483
Sulawesi, 193
Su-Lu UHPM terrane, 167
super-silicic garnet, 135
SW Japan, 319
symplectitic textures, 591

tectonic denudation, 719
tectonic evolution, 375
tectonic slice, 181
thermal modelling, 625
thermobarometry, 91, 293, 359, 551, 571, 639
THERMOCALC, 23, 497
timing of deformation, 457
Turkey, 59
T–X pseudosections, 23

UHT metamorphism, 223
ultra-high pressure, 135
ultra-high-P metamorphism, 149
ultra-high-temperature metamorphism, 345
ulvöspinel–magnetite–ilmenite, 591
uncertainties, 91
U–Pb dating, 271
U–Pb dating of monazite, xenotime and zircon, 409
U–Pb geochronology, 423
U–Th–Pb dating, 335

veins, 59, 307, 607
Vermont, 625
Vosges, 293

Western Gneiss Region, 241

zircon, 423
zoisite/clinozoisite, 1

Author index

Abd El-Naby, H., Frisch, W. & Hegner, E. Evolution of the Pan-African Wadi Haimur metamorphic sole, Eastern Desert, Egypt, 639
Andersen, T. B. *see* Engvik, A. K.
Aoya, M. *see* Wallis, S.
Árkai, P., Mata, M. P., Giorgetti, G., Peacor, D. R. & Tóth, M. Comparison of diagenetic and low-grade metamorphic evolution of chlorite in associated metapelites and metabasites: an integrated TEM and XRD study, 531
Armstrong, T. R. & Tracy, R. J. One-dimensional thermal modelling of Acadian metamorphism in southern Vermont, USA, 625
Arnold, J., Powell, R. & Sandiford, M. Amphibolites with staurolite and other aluminous minerals: calculated mineral equilibria in NCFMASH, 23
Avigad, D. *see* Katzir, Y.

Ballèvre, M., Möller, A. & Hensen, B. J. Exhumation of the lower crust during crustal shortening: an Alice Springs (380 Ma) age for a prograde amphibolite facies shear zone in the Strangways Metamorphic Complex (central Australia), 737
Barker, A. J., Bennett, D. G., Boyce, A. J. & Fallick, A. E. Retrogression by deep infiltration of meteoric fluids into thrust zones during late-orogenic rapid unroofing, 307
Barnhoorn, A. *see* Van Roermund, H. L. M.
Bennett, D. G. *see* Barker, A. J.
Bertolo, B. *see* Spiess, R.
Bhattacharya, A. *see* Gupta, S.
Black, L. P. *see* Hoskin, P. W. O.
Bolder-Schrijver, L. J. A., Kriegsman, L. M. & Touret, J. L. R. Primary carbonate/CO_2 inclusions in sapphirine-bearing granulites from central Sri Lanka, 259
Borghi, A. *see* Spiess, R.
Bose, S., Fukuoka, M., Sengupta, P. & Dasgupta, S. Evolution of high-Mg–Al granulites from Sunkarametta, Eastern Ghats, India: evidence for a lower crustal heating–cooling trajectory, 223
Boyce, A. J. *see* Barker, A. J.
Bröcker, M. *see* Graessner, T.

Brueckner, H. K. & Medaris, L. G. A general model for the intrusion and evolution of 'mantle' garnet peridotites in high-pressure and ultra-high-pressure metamorphic terranes, 123
Brunsmann, A., Franz, G., Erzinger, J. & Landwehr, D. Zoisite-and clinozoisite-segregations in metabasites (Tauern Window, Austria) as evidence for high-pressure fluid–rock interaction, 1
Buick, I. S. *see* Cartwright, I.
Byrne, T. B. *see* Lewis, J. C.

Carson, C. J., Clarke, G. L. & Powell, R. Hydration of eclogite, Pam Peninsula, New Caledonia, 79
Carswell, D. A. *see* Cooke, R. A.
Carswell, D. A. *see* Liou, J. G.
Cartwright, I. & Buick, I. S. Fluid generation, vein formation and the degree of fluid–rock interaction during decompression of high-pressure terranes: the Schistes Lustrés, Alpine Corsica, France, 607
Cartwright, I. *see* Miller, J. A.
Cawood, P. A. *see* Zhao, G. C.
Chinellato, M. *see* Spiess, R.
Clarke, G. L. *see* Carson, C. J.
Clarke, G. L., Klepeis, K. A. & Daczko, N. R. Cretaceous high-*P* granulites at Milford Sound, New Zealand: metamorphic history and emplacement in a convergent margin setting, 359
Cooke, R. A., O'brien, P. J. & Carswell, D. A. Garnet zoning and the identification of equilibrium mineral compositions in high-pressure–temperature granulites from the Moldanubian Zone, Austria, 551
Coombs, D. S. *see* Li, G.

Daczko, N. R. *see* Clarke, G. L.
Dasgupta, S. *see* Bose, S.
De Moraes, R. & Fuck, R. A. Ultra-high-temperature metamorphism in Central Brazil: the Barro Alto complex, 345
De Ronde, A. A. *see* Van Roermund, H. L. M.
Dilek, Y. *see* Whitney, D. L.
Drury, M. R. *see* Van Roermund, H. L. M.

Ellis, D. J. *see* Fraser, G.
Engvik, A. K. & Andersen, T. B. Evolution of Caledonian deformation fabrics under eclogite and amphibolite facies at Vårdalsneset, Western Gneiss Region, Norway, 241
Ernst, W. G. *see* Tsai, C.-H.
Erzinger, J. *see* Brunsmann, A.
Essene, E. J. *see* Li, G.
Evans, B. W. *see* Katzir, Y.

Fallick, A. E. *see* Barker, A. J.
Franz, G. *see* Brunsmann, A.
Fraser, G., McDougall, I., Ellis, D. J. & Williams, I. S. Timing and rate of isothermal decompression in Pan-African granulites from Rundvågshetta, East Antarctica, 441
Fraser, G., Worley, B. & Sandiford, M. High-precision geothermobarometry across the High Himalayan metamorphic sequence, Langtang Valley, Nepal, 665
Frisch, W. *see* Abd El-Naby, H.
Fuck, R. A. *see* De Moraes, R.
Fukuoka, M. *see* Bose, S.

Garfunkel, Z. *see* Katzir, Y.
Gayk, T. & Kleinschrodt, R. Hot contacts of garnet peridotites in middle/upper crustal levels: new constraints on the nature of the late Variscan high-*T*/low-*P* event in the Moldanubian (Central Vosges/NE France), 293
Giorgetti, G. *see* Árkai, P.
Graessner, T., Schenk, V., Bröcker, M. & Mezger, K. Geochronological constraints on the timing of granitoid magmatism, metamorphism and post-metamorphic cooling in the Hercynian crustal cross-section of Calabria, 409
Gupta, S., Bhattacharya, A., Raith, M. & Nanda, J.K. Contrasting pressure–temperature–deformation history across a vestigial craton–mobile belt boundary: the western margin of the Eastern Ghats Belt at Deobhog, India, 683

Hall, R. *see* Önen, A.P.
Hanmer, S. *see* Williams, M. L.
Hegner, E. *see* Abd El-Naby, H.
Hensen, B. J. *see* Ballèvre, M.
Holland, T. J. B. *see* White, R. W.
Holness, M. B. Metasomatism and self-organization of dolerite dyke–marble contacts: Beinn an Dubhaich, Skye, 103
Hoskin, P. W. O. & Black, L. P. Metamorphic zircon formation by solid-state recrystallization of protolith igneous zircon, 423

Jahn, B.-M. *see* Yang, J.-J.
Jenkins, D. M. *see* Liogys, V. A.
Jones, K. A. & Strachan, R. A. Crustal thickening and ductile extension in the NE Greenland Caledonides: a metamorphic record from anatectic pelites, 719

Kadarusman, A. & Parkinson, C. D. Petrology and *P–T* evolution of garnet peridotites from central Sulawesi, Indonesia, 193
Katzir, Y., Avigad, D., Matthews, A., Garfunkel, Z. & Evans, B. W. Origin, HP/LT metamorphism and cooling of ophiolitic mélanges in southern Evia (NW Cyclades), Greece, 699
Kleinschrodt, R. *see* Gayk, T.
Klepeis, K. A. *see* Clarke, G. L.
Kopf, C. F. *see* Williams, M. L.
Kornprobst, J. *see* Montel, J.-M.
Kriegsman, L. M. *see* Bolder-Schrijver, L. J. A.
Krogh Ravna, E. The garnet–clinopyroxene Fe^{2+}–Mg geothermometer: an updated calibration, 211
Krohe, A. & Wawrzenitz, N. Domainal variations of U–Pb monazite ages and Rb–Sr whole-rock dates in polymetamorphic paragneisses (KTB Drill Core, Germany): influence of strain and deformation mechanisms on isotope systems, 271

Landwehr, D. *see* Brunsmann, A.
Lewis, J. C., Byrne, T. B., Pasteris, J. D., London, D. & Morgan, G. B., VI. Early Tertiary fluid flow and pressure–temperature conditions in the Shimanto accretionary complex of south-west Japan: constraints from fluid inclusions, 319
Li, G., Essene, E. J., Peacor, D. R. & Coombs, D. S. Reactions leading to the formation and breakdown of stilpnomelane in the Otago Schist, New Zealand, 393
Liogys, V. A. & Jenkins, D. M. Hornblende geothermometry of amphibolite layers of the Popple Hill gneiss, north-west Adirondack Lowlands, New York, USA, 513
Liou, J. G. *see* Tsai, C.-H.
Liou, J. G. & Carswell, D. A. Preface: Garnet peridotites and ultrahigh-pressure minerals, 121
Liou, J. G. *see* Zhang, R. Y.
London, D. *see* Lewis, J. C.
Lu, L. Z. *see* Zhao, G. C.

Mata, M. P. *see* Árkai, P.
Matthews, A. *see* Katzir, Y.
McDougall, I. *see* Fraser, G.

Medaris, L. G. *see* Brueckner, H. K.
Melis, E. A. *see* Williams, M. L.
Mezger, K. *see* Graessner, T.
Miller, J. A. & Cartwright, I. Distinguishing between seafloor alteration and fluid flow during subduction using stable isotope geochemistry: examples from Tethyan ophiolites in the Western Alps, 467
Möller, A. *see* Ballèvre, M.
Montel, J.-M., Kornprobst, J. & Vielzeuf, D. Preservation of old U–Th–Pb ages in shielded monazite: example from the Beni Bousera Hercynian kinzigites (Morocco), 335
Morgan, G. B., VI *see* Lewis, J.C.

Nanda, J. K. *see* Gupta, S.

O'Brien, P. J. *see* Cooke, R. A.
Önen, A. P. & Hall, R. Sub-ophiolite metamorphic rocks from NW Anatolia, Turkey, 483

Parkinson, C. D. *see* Kadarusman, A.
Pasteris, J. D. *see* Lewis, J. C.
Peacor, D. R. *see* Árkai, P.
Peacor, D. R. *see* Li, G.
Petrini, K. & Podladchikov, Yu. Lithospheric pressure–depth relationship in compressive regions of thickened crust, 67
Podladchikov, Yu. *see* Petrini, K.
Powell, R. *see* Arnold, J.
Powell, R. *see* Carson, C. J.
Powell, R. *see* White, R. W.
Powell, R. *see* Worley, B.

Raith, M. *see* Gupta, S.
Ralser, S. Microstructural constraints on the timing of Proterozoic deformation in Central New Mexico, 457

Sandiford, M. *see* Arnold, J.
Sandiford, M. *see* Fraser, G.
Schenk, V. *see* Graessner, T.
Searle, M. P. *see* Stephenson, B. J.
Sengupta, P. *see* Bose, S.
Spiess, R., Bertolo, B., Borghi, A., Chinellato, M. & Tinor Centi, M. Microtextures of opaque inclusions: their use as indicators for hiatuses during garnet porphyroblast growth, 591
Stephenson, B. J., Waters, D. J. & Searle, M. P. Inverted metamorphism and the Main Central Thrust: field relations and thermobarometric constraints from the Kishtwar Window, NW Indian Himalaya, 571
Strachan, R. A. *see* Jones, K. A.

Tinor Centi, M. *see* Spiess, R.
Fóth, M. *see* Árkai, P.
Touret, J. L. R. *see* Bolder-Schrijver, L. J. A.
Tracy, R. J. *see* Armstrong, T. R.
Tsai, C.-H., Liou, J. G. & Ernst, W. G. Petrological characterization and tectonic significance of retrogressed garnet peridotites, Raobazhai area, North Dabie Complex, east-central China, 181

Van Roermund, H. L. M., Drury, M. R., Barnhoorn, A. & De Ronde, A. A. Super-silicic garnet microstructures from an orogenic garnet peridotite, evidence for an ultra-deep (>6 GPa) origin, 135
Vielzeuf, D. *see* Montel, J.-M.

Wallis, S. & Aoya, M. A re-evaluation of eclogite facies metamorphism in SW Japan: proposal for an eclogite nappe, 653
Waters, D. J. *see* Stephenson, B. J.
Wawrzenitz, N. *see* Krohe, A.
White, R. W., Powell, R., Holland, T. J. B. & Worley, B. A. The effect of TiO_2 and Fe_2O_3 on metapelitic assemblages at greenschist and amphibolite facies conditions: mineral equilibria calculations in the system K_2O–FeO–MgO–Al_2O_3–SiO_2–H_2O–TiO_2–Fe_2O_3, 497
Whitney, D. L. & Dilek, Y. Andalusite–sillimanite–quartz veins as indicators of low-pressure–high-temperature deformation during late-stage unroofing of a metamorphic core complex, Turkey, 59
Wilde, S. A. *see* Zhao, G. C.
Williams, I. S. *see* Fraser, G.
Williams, M. L., Melis, E. A., Kopf, C. F. & Hanmer, S. Microstructural tectonometamorphic processes and the development of gneissic layering: a mechanism for metamorphic segregation, 41
Worley, B. & Powell, R. High-precision relative thermobarometry: theory and a worked example, 91
Worley, B. *see* Fraser, G.
Worley, B. A. *see* White, R. W.

Yang, J.-J. & Jahn, B.-M. Deep subduction of mantle-derived garnet peridotites from the Su-Lu UHP metamorphic terrane in China, 167
Yang, J. S. *see* Zhang, R. Y.
Yui, T.-F. *see* Zhang, R. Y.

Zhang, R. Y., Liou, J. G., Yang, J. S. & Yui, T.-F. Petrochemical constraints for dual origin of garnet peridotites from the Dabie-Sulu UHP terrane, eastern-central China, 149
Zhao, G. C., Wilde, S. A., Cawood, P. A. & Lu, L. Z. Petrology and *P–T* path of the Fuping mafic granulites: implications for tectonic evolution of the central zone of the North China craton, 375